



Noise Certification Workshop

(Montreal, 20 to 21 October 2004)

NCW – BIP3/2
13/10/04

SESSION 3: AIRCRAFT NOISE RE-CERTIFICATION

RE-CERTIFICATION PROVISIONS (STANDARDS AND GUIDELINES)

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SUMMARY

This paper provides information on re-certification provisions for subsonic jet aeroplanes and large propeller-driven aeroplanes to Chapter 4 of ICAO Annex 16, Volume I.

1. INTRODUCTION

1.1 According to the definition agreed within ICAO/CAEP, re-certification is the “certification of an aircraft with or without a revision to its certification noise levels, to a Standard different to that to which it was originally certificated”. This paper provides information on re-certification provisions for subsonic jet aeroplanes and large propeller-driven aeroplanes to Chapter 4 of ICAO Annex 16, Volume I. The re-certification of helicopters and small propeller-driven aeroplanes is not considered.

2. BASIC PRINCIPLES

2.1 Re-certification shall be granted on the basis that the evidence used to determine compliance is as satisfactory as the evidence expected of a new type design.

2.2 In the application of re-certification guidelines, existing arrangements between certifying authorities should be respected. It is expected that bilateral arrangements will facilitate the mutual recognition between authorities of approvals granted.

3. RE-CERTIFICATION TO CHAPTER 4

3.1 The Standard of Chapter 4 of ICAO Annex 16, Volume I is applicable to subsonic jet aeroplanes and propeller-driven aeroplanes over 8618 kg for which the application for certificate of airworthiness for the prototype was accepted on or after 1 January 2006. Chapter 4 is also applicable to “all subsonic jet aeroplanes and all propeller-driven aeroplanes certificated originally as satisfying Annex 16, Volume I, Chapter 3 for which re-certification to Chapter 4 is requested”. CAEP/6 proposed to extend this provision to Chapter 5. Therefore, re-certification to

Chapter 4 can be envisaged for Chapter 3 and Chapter 5 aeroplanes, for Chapter 2 aeroplanes (first to be recertificated to Chapter 3) and also for United States FAR Part 36, Stage 3 aeroplanes.

3.2 Compared to Chapter 4, the noise limits in ICAO Annex 16, Chapters 2, 3 and 5 and the ones of FAR Part 36, Stage 3 are less stringent. The question arises why re-certification might be necessary, if the Chapter 4 noise limits are fulfilled. The explanation is that technical details within ICAO Annex 16 and FAR Part 36 have been changed over the years. It has to be assured that re-certification is granted on the current standard regarding the regulation and the guidance material (ICAO Environmental Technical Manual (ETM)).

3.3 For aeroplanes which were approved in accordance with ICAO Annex 16, Volume I, Third Edition, Amendment 5 (November 1997) or higher, no technical assessment for re-certification is necessary, if the noise limits of Chapter 4 are fulfilled. If aeroplanes were approved according to an earlier amendment of Annex 16, a technical investigation in order to re-certificate the aircraft to Chapter 4 is required. The applicable assessment criteria by CAEP/6 are laid down in Appendix 8 of the ETM (see also separate paper on "Assessment Criteria").

3.4 For FAR Part 36, Stage 3 aeroplanes, certificating authorities should request the following:

- One assessment criterion has to be considered, if the aeroplane was approved in accordance with FAR Part 36, Amendment 24 (August 2002) or higher; and
- 14 assessment criteria have to be considered, if the aeroplane was approved in accordance with FAR Part 36, Amendment 7 through 23.

For further information see the separate paper on "Assessment Criteria".

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